A thin-walled, blown glass ornament that opens

This invention relates to a thin-walled, blown glass, spatial body that opens to reveal an interior.

Various thin-walled, blown glass ornaments, in particular Christmas tree ornaments and other seasonal ornaments are presently in use.

All thin-walled, blown glass ornaments in use at present are characteristic in that they are comprised of a closed, spatial body of various shapes and typically contain one, sole opening for securing a suspension element to the body of the ornament.

Among the known methods of manufacturing thin-walled, blown glass, Christmas ornaments there is a method described in the Polish Patent No. 171623 wherein a glass bulb is given an additional element of shape in the form of a projection vent situated on one of the longer walls of the bulb. This process takes place in the mould, while the bulb is being mouth blown. Once the bulb has been annealed, the projection vent is opened using a burner flame whereas the main fullering is sealed.

A method of manufacturing multi-element, thin-walled, blown glass, Christmas ornaments is known from European Patent No. 1028644, which describes a process wherein separate elements are assembled together by inserting a tenon, coated with quick setting adhesive, into a seat.

Among the methods of manufacturing thin-walled glass, blown glass, Christmas ornaments there is also a method known from the U.S. Patent No. 4,491,494, which relates to the surface decoration of blown glass ornaments. This method involves the application of a heat shrinking film onto the surface of an ornament. As well, there is a method known from the German patent application no. 3916839 A1 in which a predetermined part of an ornament's surface is coated with an adhesive; the ornament is then dipped into a container of plastic micro-spheres. The micro-spheres used for covering the ornament are partially

filled with a scent.

These and other Christmas tree ornaments as well as methods of manufacturing thereof give the possibility of obtaining only a limited range of thin-walled, blown glass ornaments.

With the foregoing in mind, it is the object of the present invention to provide a new range of Christmas tree ornaments and other seasonal ornaments made of thin-walled, blown glass characteristic in that: a) they can be repeatedly opened in order to reveal an interior, without causing any breakage; and b) additional elements can be placed inside the ornament which determine the attractiveness of the features thereof.

The object of this invention is created by constructing a thin-walled, blown glass ornament that opens, in particular a Christmas tree ornament, comprised of any spatial body characteristic in that the body consists of at least two modules of shell construction, mouth blown in separate moulds - top and bottom - which are dimensionally and spatially correlated with each other in the connection plane thereof.

The top and bottom modules can be connected or disconnected (separated) by means of at least two locks situated on the rim of each module. The modules are then brought together by means of an articulating hinge or elastic band installed in the connection plane, which enables the frequent bending aside of both modules, as well as by means of at least one lock (clip-lock) situated on the rim of the connection plane of each module.

The top module, comprised of one spatial element of shell construction, may be arranged or connected with the bottom module so as to constitute one whole; or, the modules may be disconnected (opened) so as to reveal an interior.

The upper unit may also consist of two or more spatial elements composing the entire element of the top module; thus, each element of the top module is capable of bending aside while remaining in articulated connection with the bottom module. Such a method

further requires that the separate elements of the top module be connected to each other.

The bottom module may consist of a shell construction with a hollow interior, which provides a larger capacity for enclosing separate, miniature, ornamental objects. Alternatively, the interior of the bottom module may be closed from the top of the connection plane such that the bottom module constitutes a closed, solid body. Additionally, the bottom module may feature a flat bottom, which allows it to be placed (as opposed to suspended from above) on a flat surface. In the case of a flat-bottomed module, the top module has a closed fullering.

At least one miniature ornamental object is contained within the body of the ornament so as to constitute an ornament-within-an-ornament. The miniature ornamental object may be placed directly on the interior shell wall of the bottom and/or of the top module; it may also be fastened onto the flat surface, or the "roof", covering the bottom module.

The entire surface of the ornament is covered with ornamental expressions obtained from a glass-blowing mould and is colorfully treated with such elements as paint, glitter, gold and/or patina.

The solution, according to the invention, enables the generation of an entirely new "family" of ornaments made of thin-walled, blown glass on the basis of two, primary construction modules constituting a top and a bottom. The top and the bottom modules can be in articulated connection with each other and can also be disconnected (separated) in order to reveal a miniature, ornamental object placed inside.

The object of the invention is illustrated in the attached drawings in which:

FIG.1 is an overall view of a closed ornament;

FIG.2 illustrates an ornament opened by bending aside a one-piece top module;

FIG.3 illustrates an ornament opened by bending aside two parts of a two-piece top module;

FIG.4 is an overall view of an ornament opened and separated after prior unfastening of

locks installed on the outer surface.

The object of this invention will become apparent from the following description and examples of the invention's illustrative features.

Example I

The ornament illustrated in FIG.1 consists of two modules, top (1) and bottom (2), made in separate moulds. The surface of both modules is covered with ornamental expressions (10) obtained from a mould in which they have been mouth blown. Both modules (1) and (2) are connected in the connection plane 3 and both modules feature a two-piece clip-lock (4) enabling frequent opening and closing of the ornament. At the opposite side of the lock (4) there is a metal hinge (5) or a piece of elastic band (not shown), which enables opening of the ornament so as to reveal the interior. The interior of the ornament is hollow and thus can be freely filled with additional, miniature objects. The upper part of the top module (1) features a projection (7) enabling suspension of the ornament by means of a lace, a lace hanger or any other means.

Example II

FIG.2 illustrates an ornament, which has been opened (the top module is bent aside) with the help of a hinge (5) connecting the ornament's top module (1) with its bottom module (2) after prior opening of a clip-lock (4). Inside the ornament's connection plane (3) and on the bottom module (2) there is a flat surface (11) comprising a base upon which an additional, miniature, ornamental object is installed. The ornament may be repeatedly opened and closed due to the articulated connection of both modules. A clip-lock (4) is installed on the outside of the ornament. The ornament may also be suspended by means of a loop (7).

Example III

FIG.3 illustrates an ornament featuring a two-piece top module (1a) and (1b). Each part of the two-piece top module is attached to an articulating hinge (5). The upper part of each piece contains a projection (7) enabling suspension of the ornament by means of a lace, a lace hanger, an ornamental string, a bow or a wire. The bottom module (2) is provided with a flat

base (8), which enables free placement of the ornament on any flat surface.

The bottom module (2) can be a shell construction with a hollow interior or, alternatively, a closed solid body with a flat surface at the connection plane of both modules. In the case of a shell construction, a roof may be inserted onto the bottom module in order to provide a surface (11) upon which a miniature, interior ornament (9) may be placed.

Example IV

FIG. 4 illustrates an ornament made up of two modules, top (1) and bottom (2), separated permanently but which may also be re-connected by the opening and closing of clip-locks (5) situated on the rim of each module in the connection plane thereof. The upper part of the top module (1) features a closed fullering. The outer surface of both modules (1) and (2) is covered with ornamental expressions (10) obtained from a mould.

Claims:

1. A thin-walled, blown glass ornament that opens, in particular, a Christmas tree or other seasonal ornament, of any spatial body, which is characteristic in that it consists of at least two glass modules, top (1) and bottom (2); the modules are dimensionally and spatially correlated in the connection plane (3) thereof; at least one module is of a shell construction obtained by cutting a solid blown module.

2. An ornament according to claim 1 wherein the top module (1) and the bottom module (2) may be connected and/or permanently disconnected (separated) by means of at least two locks (4) situated on the rim of each module.

3. An ornament according to claim 1 wherein the top module (1) and the bottom module (2) are connected by means of an articulating hinge (5) or an articulated joint and are closed by means of at least one lock (4) situated on the rim of each module.

4. An ornament according to claim 1 wherein the top module (1) comprises one spatial body.

5. An ornament according to claim 1 wherein the top module (1) consists of at least two spatial bodies (1a) and (1b) and each of the elements is connected with the bottom module (2) in the connection plane (3) by means of articulating hinges (5) or by an articulated joint and at least one lock (4).

6. An ornament according to claim 4 wherein the edges of the modules, in the connection plane thereof, are provided with a metal rim, or other protection means which is provided with an articulated joint for bending aside and a lock for connecting both modules.

7. An ornament according to claim 4 wherein the top module (1) is provided with a projection (6) for suspending a hanger.

8. An ornament according to claim 5 wherein each of the spatial elements, (1a) and (1b), of the top module is provided with a projection (7) for affixing a lace, or a lace hanger, or an ornamental string, or a bow, or a wire.

9. An ornament according to claim 1 wherein the bottom module (2), which is either a shell construction or closed, solid body, is provided with a flat surface (8).

10. An ornament according to any of claims 1 and 8 wherein at least one miniature, ornamental object (9) made of any material is placed inside and fastened onto the surface of the bottom module (in case of a solid body); or, alternatively, onto the inserted roof (11) of the bottom module (in case of a shell construction).

11. An ornament according to claim 1 wherein the outer surface of the top module (1) and the bottom module (2) is covered with imprints (10) obtained from a metal mould and the outer and inner surface of the ornament is then treated with paint and/or glitter and/or gold and/or silver and/or is engraved.

Abstract

The invention concerns a thin-walled, blown glass ornament that may be repeatedly opened and closed. It is comprised of a spherical, spatial body consisting of at least two modules, top (1) and bottom (2) jointly connected with each other by means of an articulating hinge (5) or elastic band and at least one lock (4) situated on the rim of each module. The top module (1) comprises at least one spatial body and the bottom module (2) may feature a flat bottom (8). At least one additional miniature ornamental object (9) is situated inside the ornament that opens. Both modules may also be connected by means of locks (4).